

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Inventor(s): Symonds

Appln. No.: 09

Series Code ↑

719,416

Serial No. ↑

Filed: December 12, 2000

Hon. Commissioner of Patents
Washington, D.C. 20231O I P E J C I
APR 24 2002

Group Art. Unit 3743

Examiner: Leo, L.

Atty. Dkt. P 0275379

P03176PCT(US)

M# Client Ref

Appln. Title: Heat Exchanger

ABP 4/27/02

RECEIVED

APR 26 2002

Date: April 24, 2002

TECHNOLOGY CENTER R3700

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

1. Small Entity claim

- A. NOT made For B & C
 B. Withdrawn See Required
 C. made herewith Separate Paper
 D. made previously (Pat-256)

	Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims	20	**minus	20	0	x \$18/\$9 =	+ \$0 103/203
3. Independent Claims	2	***minus	3	0	x \$84/\$42 =	+ \$0 102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application)		add		+ \$280/\$140 =	+ \$0	104/204
5. Original due Date: January 24, 2002	<input type="checkbox"/> NONE					
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached	(1 mo) (2 mos) (3 mos) (Usable only for ≤ 2mo.OA --- 4 mos) (Usable only for 30 day/1mo.OA --- 5 mos)	\$110/\$55 = \$400/\$200 = \$920/\$460 = \$1,440/\$720 = \$1,960/\$980 =	+ \$920			115/215 116/216 117/217 118/218 128/228
7. Enter any previous extension fee paid since above original due date and subtract		- \$0				
8.		Extension Fee Attached		+ \$920		
9. If Terminal Disclaimer attached, add Rule 20(d) official fee		+ \$110/\$55		+ \$0		148/248
10. If IDS attached requires Official Fee under Rule 97 (c), or if Rule 97(d) Request	add add	+ \$180 + \$180		+ \$0		126 126
11. After-Final Request Fee per rules 129(a) and 17(r)		+ \$740/370		+ \$0		146/246
12. No. of additional inventions for examination per Rule 129(b).....		x \$740/370 ea		+ \$0		149/249
13. Request for Continued Examination (RCE)		+ \$740/370		+ \$0		1179/1279
14. Petition fee for		+ \$0				
15.		TOTAL FEE CHARGED TO DEPOSIT ACCOUNT =		\$920		

16. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".

17. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.

18. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

CHARGE Deposit Account No. 03-3975

(Our Order No. 007627 0275379

C# M#

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

04/30/2002 TTFTL 00000001 03-3975 09719416
This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

01 FC:117 920.00 CH

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Atty/Sec: PLS/GP

Pillsbury Winthrop LLP
Intellectual Property Group

By Atty: Paul L. Sharer

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NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

SYMONDS

Group Art Unit: 3743

Application Serial No. 09/719,416

Examiner: LEO, L.

Filed: December 12, 2000

Title: HEAT EXCHANGER

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TECHNOLOGY CENTER R3700

April 24, 2002

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AMENDMENT

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

In response to the Office Action dated October 24, 2001, please enter the following amendments and consider the following remarks.

IN THE CLAIMS:

Please cancel claim 13 without prejudice or disclaimer.

Please amend the following claims:

b1

1. (Amended) A heat exchanger comprising a stack of parallel plates, wherein each plate of the stack having perforations defining an array of spaced column precursors of thickness equal to the plate thickness, at locations that are spaced in two directions over an area of the plate,
said column precursors being joined together by ligaments having a thickness less than the plate thickness,

each ligament extending between a pair of adjacent column precursors, such that the column precursors of any one plate being coincident in the stack with the column precursors of any adjacent plate whereby the stack is provided with an array of individual columns, each column extending perpendicularly to the plane of the plates,
each plate is provided with extensions in the form of loops which stack together to provide one or more tanks at the sides of the stack, and